

Abstract

1 A high resolution sheet metal scanner employs machine vision to check a sheet metal part
2 or the like for accuracy of punched or drilled holes or other structure. A high-resolution line-
3 scanning camera mounted to an X-Y table, located in an environmentally sealed lower assembly.
4 The sheet metal part is placed upon a transparent support plate. The line-scan camera is
5 precision focused on the top surface of the glass support plate. An elongated linear illuminator is
6 situated above the glass plate. The illuminator extends in the X direction and moves in the Y
7 direction. The camera is transported in the X and Y directions on a carriage of the X-Y table. A
8 computer control may be used for controlling the camera and the X-Y table. The drive for the
9 camera and for the illuminator are mechanically independent.

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